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ABSTRACT

A study determined if there would be any significant difference in comprehension from expository text between students instructed to use context clues and prior knowledge and those students not instructed in their use. It was hypothesized that students who only used a dictionary to understand words, not exploring context or prior knowledge, will not possess a true understanding of the word meaning. Subjects, 22 students heterogeneously grouped in a self-contained third-grade classroom, were divided into control and experimental groups. Subjects in the control group identified each unknown word, defined the words using a dictionary, and used the words in sentences. Subjects in the experimental group identified each unknown word using sentence context and activating existing prior knowledge about the word to gain understanding of the word. Results indicated that when students used a dictionary alone, they did not use the word in other reading and writing tasks more accurately than students who learned the meaning of words via context and relating sub-meaning to prior knowledge. (Contains 15 references and one table of data. Appendixes present test scores and word lists.) (Author/RS)

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VOCABULARY DEVELOPMENT AND CONTEXT USAGE

BY

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ABSTRACT

This study was undertaken to determine if there would be any significant difference in comprehension from expository text between students instructed to use context clues and prior knowledge and those students not instructed in their use. It was hypothesized that students who solely use a dictionary to understand words, not exploring context or prior knowledge, will not process a true understanding of the word meaning.

The null hypothesis was accepted proving that when students use a dictionary alone, they do not use the word in other reading and writing tasks more accurately than students who learn the meaning of words via context and relating sub-meaning to prior knowledge.

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I. Mean, Standard Deviation, and t of the Control and Experimental Sample Results

Research concerning vocabulary instruction has been ongoing for the past six decades. The previous research studies have shown that complete vocabulary instruction is complex, encompassing accurate knowledge of word meanings and contextual knowledge. Most vocabulary is not acquired through direct instruction and memorization. Students are not able to apply the correct meaning of the word just because they have looked it up in the dictionary or used it in a sentence. Unless the student can generalize the meaning of the word by applying it to a new context, vocabulary work has remained at the skills level, and students may have a store of words for which they only have a shell of meaning without substance (Duffelmeyer, 1985).

A definition is unlikely to promote complete understanding of a word; that must come from repeated exposure to inferring meanings of words through context. Without some prior knowledge of the word it is very difficult to use the word correctly. "Definitions do not teach you how to use a new word and definitions do not effectively convey new concepts" (Nagy, 1988).

Teachers can promote vocabulary development within the context of literature when the meaning of the text can be used to determine word meaning. Dictionaries should be consulted when the need arises - when the definition of a word cannot be inferred from the context of a sentence.

The correlation between vocabulary and reading comprehension is so high because both tap the same basic processes. These processes are those used to infer the meaning of new words from cues given in the context of the sentence.

The findings from vast amounts of reading on vocabulary instruction indicate that direct instruction using context and prior knowledge is effective for improving comprehension of related materials (Nelson-Herber,1986). Some research findings indicate that "vocabulary instruction improves comprehension only when both definitions and context are given, and has the largest effect when a number of different activities or examples using words in context are used" (Stall, 1986).

Class discussions which initiate students to think more deeply about words as they make connections between prior knowledge and new information are beneficial to comprehension. Vocabulary programs which spend a lot of time on word's meanings and extend over a length of time provide an opportunity for students to encounter words in several contexts and to gain ownership of these words (Stahl,1986).

The study of vocabulary development and the teaching of "meaning vocabulary" have shed new light on how children learn to read and how teacher's use activating schemata to enhance meaning for students. Teachers also should help students become better at making inferences as

they read (Durr,1986).

The use of word lists can be more disadvantageous than beneficial to students. Word lists do not foster critical thinking. Teachers must look for more creative ways to make vocabulary instruction more effective and inspiring (Ianacone,1993).

Vocabulary has been considered an important predictor of reading achievement because it represents a person's verbal knowledge (Fry & Lagomarsino,1988). Children were better able to process unfamiliar words if they were presented in familiar contexts (Wittrock, Marks, and Doctorow,1989).

The aforementioned evidence suggests that dictionary definitions are not effective in understanding word meaning. We do not learn most of our words by looking them up in a dictionary. Rather, we learn them in context of our experiences with listening, speaking, reading, and writing. Students are frequently unable to generate sentences that used the words accurately.

Hypothesis

To provide additional evidence on the topic, the following study was undertaken. It was hypothesized that students who solely use a dictionary

to understand unknown words, not exploring context or prior knowledge, will not process a true understanding of the word. When students use memorization alone, they will not be able to use the word in other reading and writing tasks accurately as students who learn the meaning of words via context and relating sub meaning to prior knowledge.

Procedure

One third grade class was selected to participate in this study. The class was heterogeneously grouped in a self-contained classroom. The sample consisted of 22 students with similar characteristics including chronological age, grade level, socioeconomic status, and academic achievement level.

The design of the study required two treatment conditions, control and experimental. Both groups received prereading vocabulary instruction and read passages from a grade level appropriate book.

Subjects in the control group identified the unknown word, define the word using a dictionary as a resource to find meaning, and then used the word in a sentence to demonstrate true understanding of the word. The experimental group identified each unknown word using sentence context and activating existing prior knowledge about the word to gain

understanding of the word. Once word meaning has been established by the subjects the word was used in a sentence.

At the completion of The Courage of Sarah Noble by Alice Dalgleish, a matching test will be administered by the classroom teacher. The mean scores of the sample of the n tests were compared using t tests to determine the significance of differences, if any.

Table 1 illustrates the means, standard deviations and t of the results of the tests taken by the students in both samples.

Results

Table 1

Means, Standard Deviations and t of the Samples

Sample	Mean	SD	t
Experimental	90.91	8.31	0.00
Control	90.91	3.02	

The mean scores indicate that the control group and the experimental group had identical mean scores on the test that were administered the t of .00 was at best superfluous.

Conclusions

The results of this study permit rejection of the hypothesis that students using a dictionary to understand unknown words will not process a true understanding of the word compared to students who explore context and prior knowledge to understand unknown words.

At the onset of this experiment measures were taken to ensure that the experimental and control samples were equal. Both groups were given the same set of vocabulary words to define, however; the control group took much longer to find the word meanings than the experimental group. Students in the control group needed two extra class periods to complete the definitions than students in the experimental group. Several learning disabled children in the control group did experience difficulty in processing a true understanding of the word. They were unable to locate and identify the correct word usage for how the word was used in the novel.

It was concluded that children can learn to understand vocabulary using either context or definitional approaches. Neither way appears to be superior. Learning vocabulary may depend on individual students and their individual learning styles but that as a group these differences in learning are marked.

VOCABULARY DEVELOPMENT AND CONTEXT USAGE: RELATED RESEARCH

The emphasis on acquiring new word knowledge as part of reading instruction is based to a large extent on the fact that "comprehension is building bridges between the new and the known" (Pearson and Johnson, 1978). In order for new concepts to be learned, they must be related to concepts already known. Research theorists concerned with the pedagogical impact of schema theory on reading comprehension have provided evidence that a reader's prior knowledge is an important factor in reading comprehension (Adams and Bruce, 1980 et al.).

There has been an increasing interest by researchers in examining the effects of vocabulary instruction on passage comprehension. McKeown, Beck, and Perfetti (1982) studied the effects of vocabulary knowledge on lexical access and reading comprehension. As part of their study, they examined the relationship between long-term vocabulary instruction and passage comprehension in 27 fourth-grade children. Beck et al. reported that the subjects who received vocabulary instruction learned the 104 target vocabulary and processed those words more efficiently than did the control subjects.

Stahl (1982) examined the effects of direct vocabulary instruction on reading comprehension on 28 average fifth-grade students. Two vocabulary training treatment groups, a definitional treatment and a

mixed definitional and context treatment, were compared to a control group. All subjects received all three treatments in a counterbalanced order. Both vocabulary treatments produced higher scores on the passage comprehension tests for two of the three treatment orders, and higher scores on the vocabulary tests for all three treatment orders. The mixed definitional and context treatment produced significantly higher passage comprehension scores than did the the definitional method treatment. Stahl concluded that direct instruction in vocabulary prior to reading using context had a significant effect on both comprehension and vocabulary learning.

Kameenui, Carnine, and Freschi (1982) conducted studies with 60 students in the fourth, fifth, and sixth grades to see whether learning the definitions of difficult words facilitated passage comprehension. Passage comprehension was assessed with a multiple-choice test using a 66 word passage containing six of the difficult words. Subjects who received vocabulary instruction on the difficult words performed significantly better on the comprehension measure than subjects who did not receive direct instruction. These results suggest that learning the meanings of difficult vocabulary words does enhance comprehension.

Current interest in understanding the relationship between prior knowledge and reading comprehension has resulted in an "explosion of

research that has greatly enhanced understanding of how one's background knowledge about text concepts functions in the reading process" (Beck and McKeown, 1982). In the mid-1960's, Kenneth Goodman observed first and third graders and documented what they did in the process of reading. He noted that when children were asked to read a whole story, they could read words in context that they could not read out of context. Goodman noted the miscues readers made as something unexpected that the reader does in the process of reading as to errors or mistakes.

Goodman's research showed us that it was not necessary to introduce drill words out of context. He said "teach phonics in isolation, teach reading in a hierarchy of skills to be mastered" (Goodman, 1960).

Understanding how prior knowledge affects comprehension is dependent upon an understanding of the notion of schemata, or knowledge structures, that serve as frameworks for related concepts (Anderson, Spiro, and Anderson, 1978). Rumelhart (1980) described schemata as "building blocks of cognition". He explained schemata as the fundamental elements upon which all information processing depends. Reading comprehension is defined as the "process of using prior knowledge and the cues provided by the author to construct a model of the meaning of the text which hopefully bears some resemblance to the author's intended meaning" (Johnston and Pearson, 1982).

Using context clues is an important part of vocabulary acquisition (Durkin, 1978). Student's use of context may be responsible for most of their vocabulary learning. Students increase their vocabularies by some 20,000 words from grades three to seven. The use of context clues with morphological analysis is the only plausible explanation for this increase in word knowledge (Anderson and Freebody, 1979).

Students should be taught how to use context clues with common classroom text material. When students have practiced the strategy of using context to define vocabulary words using classroom texts, the students are more likely to transfer their use of context clues to independent reading (Ryder, 1986).

When students are shown how to concentrate their efforts on the structure of text rather than memorizing specific types of definitions, they are more likely to transfer the skills required to independent reading. By strengthening students' understanding of text structures, this procedure should enhance text understanding as well as vocabulary acquisition (Ryder, 1986).

Eller and Pappas argue that an important aspect of vocabulary development is readers' understanding of the nature of written language. The purpose of the study was to investigate the process involved in acquiring word knowledge from written context. Kindergarten prereading

students were read two picture storybooks on three separate occasions.

The students were then invited to take turns "reading" the books. Using an ordinal category system developed for the study, three analyses of the three "readings" of each book were made which identified patterns of vocabulary growth. The results showed the ways that children learned lexicogrammatical information through exposure to written context.

The act of comprehending requires the reader to make inferences about information not explicitly stated in the text. Lipson (1982) says this process of making inferences is necessary to connect parts of the text to the reader's existing prior knowledge about the text. Adams and Bruce (1980) stated that "without prior knowledge, a complex object, such as a text, is not just difficult to interpret; strictly speaking, it is meaningless" . It makes sense then that a reader who brings a strong prior knowledge base to the reading task can generate the inferences required to construct a model of the meaning of the text with more ease than a reader with a weak prior knowledge base.

A study by Crafton (1983) lends further support to the idea that providing background knowledge improves comprehension. In this study, 15 out of 30 eleventh-grade subjects read two expository passages dealing with the same topic. The other half of the subjects read two unrelated passages. The second passage was the same for both groups of

students. Students who read the two related passages performed significantly better on a comprehension measure for the second passage than did students who read the unrelated selection first. Crafton concluded that students can improve their background knowledge by reading material related to the same topic.

"Context may be the single most important aid in building vocabulary" (Hardin, 1980). Sophisticated readers rarely resort to using a dictionary; context nearly always provides the necessary clues. Even the dictionary makes use of context. Along with a definition, all good dictionaries "prove" the meaning by using the word in a sentence- often more useful that the definition itself.

Carroll (1964) had designated the teaching of words as one of the most important tasks of teachers at all educational levels. He recommended that "students be taught the unfamiliar ways in which the familiar words could be used, as well as the role of context in resolving possible ambiguities". (Searls, 1984).

The knowledge of word meanings is an important component of reading comprehension. Davis' research (1972) was concerned with the extensiveness of vocabulary, or number of different words whose meaning was known. While the extensiveness of childerns meaning vocabulary (number of different words known) has been considered an important

component of reading comprehension, a recent finding has indicted that intensiveness (number of different meanings known for a single word-multiple meanings) and flexibility (the ability to select the particular meaning to fit a given context) are also significant factors of vocabulary development (Searls, 1984).

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APPENDIX

APPENDIX

Appendix A

TEST SCORES

CONTROL	EXPERIMENTAL
90	90
90	90
90	100
90	100
90	90
90	90
90	70
100	100
90	90
90	90
90	90

Appendix B

VOCABULARY

Journey

courage

musket

trail

quilt

chop

forest

coarse

course

fir

fur

dear

piece

weather

bare

scarlet

squaw

mush

moccasins

pebble